



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,100	07/10/2003	Yutaka Banba	35848	1988
116 7590 02/28/2007 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER RIZK, SAMIR WADIE	
			ART UNIT 2133	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			02/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/617,100	Applicant(s) BANBA, YUTAKA	
	Examiner Sam Rizk	Art Unit 2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-16 is/are rejected.
- 7) ☐ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


GUY LAMARRE
PRIMARY EXAMINER

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/16/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/17/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

- Response to the applicant's amendment/arguments dated 2/9/2007
- Claims 1-13 have been Cancelled
- Amended claims 14-16 have been submitted for examination
- Amended claims 14-16 have been rejected

Drawings

1. Figure 8 should be designated by a legend such as --Prior Art—or --RELATED ART-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments

2. Applicant's arguments, see pages 2-3, filed on 2/9/2007, with respect to the rejection(s) of claim(s) 14-16 under 35 U.S.C. 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kawahara et al. US patent no. 6434718 (Hereinafter Kawahara) and in further view of Murata et al. US patent no. 5925146 (Hereinafter Murata).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al. US patent no. 6434718 (Hereinafter Kawahara) and further in view of Murata.
4. In regard to claim 14, Kawahara teaches;
- (Currently amended): A decoding method for a signal having been encoded under use of a channel coding per transmission frame (314) having a plurality of compressed frame data (310,311, 312,313), including:
 - a) bits of said plurality of compressed frame data (310, 311,312, 313) grouped into a plurality of classes (320, 321,322) according to the

degree degradation in decoding quality in the presence of
transmission errors;

(Note: Figures 2A, 2B and 2C and col. 3, line 28 and col. 4,
lines (65-67) through col. 5, lines (1-5) in Kawahara)

b) each of the plurality of classes (320, 321,322) having been
subjected to different channel coding processes under use of
different error protection codes, the decoding method comprising
the steps of:

- performing different decoding for transmission frames in each of
the plurality of classes (320,321,322) grouped in descending order of
error protection,

(Note: Figure 3 in Kawahara)

- ungrouping the plurality of compressed frame data (310,311,312, 313)
from the plurality of classes (320,321,322), and

(Note: Figure 3, reference character (105) in Kawahara)

However Kawahara does not teach:

- in each of the plurality of compressed frame data [(314)] that is
compressed by way of a sub-band ADPCM mode, halting the process
of the application of a scale factor during ADPCM decoding per
sub-band in the presence of an unrecoverable transmission error in
said audio compressed frame data.

Murata, in an analogous art, that teaches reception data expander having noise reduced in generation of reception data error discloses:

- in each of the plurality of compressed frame data that is compressed by way of a sub-band ADPCM mode, halting the process of the application of a scale factor during ADPCM decoding per sub-band in the presence of an unrecoverable transmission error in said audio compressed frame data.

(Note Figure 6 "PROCESS OF ADPCM DECODER" and col. 11, lines (6-67) through col. 12, lines (1-18) in Murata)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Murata that perform halting the process of the application of a scale factor during ADPCM decoding per sub-band in the presence of an unrecoverable transmission error in said audio compressed frame data.

This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized the need to for low power consumption without increasing the decoder complexity and that can suppress noise in reception of data.

5. In regard to claim 15, Kawahara teaches;

- (Currently amended): Use of the decoding method of claim 14 on a coded signal wherein the bits of said compressed frame data are grouped into at least three classes (320, 321, 322) involving first class

(320), second class (321) of which the degree of degradation of the decoding quality is smaller than that of the first class and third class (322) of which the degree of degradation of the decoding quality is smaller than that of the second class (321), and wherein first process "convolution coding and addition of CRC check codes is performed for bits classified as the first class (320), second process "convolution coding only" is performed for bits classified as the second class (321), and third process "no coding" is performed for bits classified as the third class (322).

(Note: col. 4, lines (35-39) and col. 4, lines (30-34) and col. 4, lines (42-46) in Kawahara)

6. Claim 16 is rejected for the same reasons as per claim 14.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

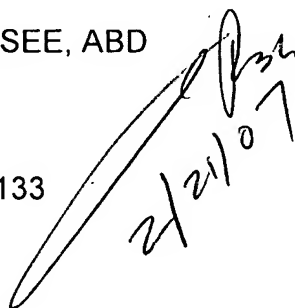
Art Unit: 2133

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

Sam Rizk, MSEE, ABD

Examiner

ART UNIT 2133

A handwritten signature, possibly 'SR', is written over the text. Below the signature, the date '2/21/07' is written vertically.